

Case 3211

CLIONIDAE d'Orbigny, 1851 (Porifera, Hadromerida): proposed emendment of spelling to CLIONAIDAE to remove homonymy with CLIONIDAE Rafinesque, 1815 (Mollusca, Pteropoda)

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Abstract. The purpose of this application, under Articles 29 and 55.3.1 of the Code, is to remove homonymy between the family names CLIONIDAE Rafinesque, 1815 (Mollusca) and CLIONIDAE d'Orbigny, 1851 (Porifera) by changing the spelling of the junior homonym. It is proposed that the entire name *Cliona* Grant, 1826 (Porifera) be used to form CLIONAIDAE, leaving the stem of the senior homonym (based on the name *Clione* Pallas, 1774; Mollusca) unchanged. *Clione* Pallas, 1774 and *Clio* Linnaeus, 1767 are respectively the type genera of CLIONIDAE Rafinesque, 1815 (Mollusca) and CLIOIDAE Jeffreys, 1869 (Mollusca).

Keywords. Nomenclature; taxonomy; CLIOIDAE; CLIONAIDAE; CLIONIDAE; *Clio*; *Cliona*; *Clione*; *Clio pyramidata*; *Cliona celata*; *Clione borealis*; pteropods; boring sponges.

1. Rafinesque (1815, p. 141) established a subfamily for a group of gymnosome pteropods (Mollusca) and named it 'Clionidia'. Under Article 29.2 of the Code, this name has an incorrect suffix for a subfamily. The suffix should be -INAE, giving CLIONINAE. The type genus was given by Rafinesque as 'Clione R. Clio Brown' [sic], and the context indicates that *Clione* Pallas, 1774 was meant. The type species of *Clione* by monotypy is *Clione borealis* Pallas, 1774 (p. 28, pl. I, figs. 18–19). *C. borealis* is a junior synonym of *Clio limacina* Phipps, 1774 (p. 195). The respective months of publication of the works by Pallas (1774) and Phipps (1774) are being investigated and will be made available to the Commission before it votes on this application.

2. The genus *Clio* was described and named by Linnaeus, 1767 (p. 1094), based on a pre-Linnaean work, *The civil and natural history of Jamaica*, by Patrick Browne (1756). Linnaeus (1767) included three nominal species: *C. caudata*, *C. pyramidata* and *C. retusa*. He referred to descriptions of these made by Browne (1756). Phipps (1774, p. 195) then added two additional nominal species *C. helicina* and *C. limacina* (see above), referring to the rare English translation of Martens's (1675) pre-Linnaean work *Spitzbergische oder Groenlandische Reise Beschreibung*.

3. The type species of *Clio* is *Clio pyramidata* Linnaeus, 1767 by subsequent designation by Gray (1847, p. 203). *Clio* Linnaeus, 1767 is the type genus of the family CLIOIDAE Jeffreys, 1869 (p. 118). The similarity of the names *Clio* Linnaeus,

1767 and *Clione* Pallas, 1774 has meant that usage of these names has been confused. It was not until after the 1840s that *Clio* was generally used for a group of thecosome molluscs and *Clione* became generally used as the name for a group of gymnosome molluscs (e.g. Gray, 1847).

4. The standard modern reference on the Gymnosomata is by van der Spoel (1976, pp. 97–103), who incorrectly gives Gray (1840) as the author of the family name CLIONIDAE and Pruvot-Fol (1926) as the author of the subfamily name CLIONINAE. Under Articles 11.7.1.3, 34.1 and 36.1 of the Code, both the names CLIONINAE and CLIONIDAE used in relation to gymnosome pteropods retain Rafinesque, 1815 as correct authorship and date.

5. D'Orbigny (1851, p. 209) established the family name CLIONIDAE for a group of boring sponges (hadromeridan Porifera) designating *Cliona* Grant, 1826 (p. 78) as the type genus. The type species of *Cliona* by monotypy is *Cliona celata* Grant, 1826 (p. 78). In the last 100 years, numerous publications have used the family name CLIONIDAE d'Orbigny, 1851. Examples include Annandale (1915, p. 1), de Laubenfels (1936, p. 154), Volz (1939), Old (1941), Hartman (1958), and more recently Pang (1973), Rützler (1986), Vicente et al. (1991), Bavastrello et al. (1996), Hooper & Wiedenmayer (1994) and Rosell & Uriz (1997). All modern textbooks and reviews of systematics, ecology, and biology of sponges (Porifera) use the name CLIONIDAE, although (if it is given) authorship is always incorrectly attributed to Gray, 1867 (e.g. Brien et al. (1973), Bergquist (1978) and Hartman (1982)).

6. CLIONIDAE d'Orbigny, 1851 is a junior homonym of CLIONIDAE Rafinesque, 1815, and has no synonym that could be used as a replacement name. We propose to remove this homonymy by using the entire genus name *Cliona* as the stem for the formation of the sponge (poriferan) family name.

7. The International Commission on Zoological Nomenclature is accordingly asked:

- (1) to use its plenary power to rule that for the purposes of Article 29 of the Code the stem of the generic name *Cliona* Grant, 1826 is *Cliona-*;
- (2) to place on the Official List of Generic Names in Zoology the following names:
 - (a) *Clio* Linnaeus, 1767, type species by subsequent designation by Gray (1847) *Clio pyramidata* Linnaeus, 1767 (Mollusca);
 - (b) *Clione* Pallas, 1774, type species by monotypy *Clione borealis* Pallas, 1774 (Mollusca);
 - (c) *Cliona* Grant, 1826, type species by monotypy *Cliona celata* Grant, 1826 (Porifera);
- (3) to place on the Official List of Specific Names in Zoology the following names:
 - (a) *pyramidata* Linnaeus, 1767, as published in the binomen *Clio pyramidata* (the specific name of the type species of *Clio* Linnaeus, 1767) (Mollusca);
 - (b) *limacina* Phipps, 1774, as published in the binomen *Clio limacina* (senior synonym of *Clione borealis* Pallas, 1774, the specific name of the type species of *Clione* Pallas, 1774) (Mollusca);
 - (c) *celata* Grant, 1826, as published in the binomen *Cliona celata* (the specific name of the type species of *Cliona* Grant, 1826) (Porifera);
- (4) to place on the Official List of Family-Group Names in Zoology the following names:
 - (a) CLIONIDAE Rafinesque, 1815, type genus *Clione* Pallas, 1774 (Mollusca);

- (b) CLIONAIDAE d'Orbigny, 1851, type genus *Cliona* Grant, 1826 (spelling emended by the ruling in (1) above) (Porifera);
- (c) CLIOIDAE Jeffreys, 1869, type genus *Clio* Linnaeus, 1767 (Mollusca);
- (5) to place on the Official Index of Rejected and Invalid Family-Group Names in Zoology the name CLIONIDAE d'Orbigny, 1851 (an incorrect original spelling of CLIONAIDAE, as ruled in (1) above) (Porifera).

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